

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
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1. REPORT DATE (DD-MM-YYYY) 08/21/2017		2. REPORT TYPE		3. DATES COVERED (From - To) 08/21/2017-08/25/2017	
4. TITLE AND SUBTITLE Casting and Splinting				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Capt Christopher Gomez				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) 59th Clinical Research Division 1100 Willford Hall Loop, Bldg 4430 JBSA-Lackland, TX 78236-9908 210-292-7141				8. PERFORMING ORGANIZATION REPORT NUMBER  17323	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) 59th Clinical Research Division 1100 Willford Hall Loop, Bldg 4430 JBSA-Lackland, TX 78236-9908 210-292-7141				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release. Distribution is unlimited.					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON Clarice Longoria
a. REPORT	b. ABSTRACT	c. THIS PAGE			19b. TELEPHONE NUMBER (include area code) 210-292-7141

# Thumb Spica

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## Disclaimer

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S A N S # 3 0



## Overview

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- **Indications**
- **Cast Vs Splint**
- **Materials Needed**
- **General Principles**
- **Splint**
- **Cast**
- **Self Evaluation**
- **Points to Discuss with Patient**





S A N S # 3 0



# Indications

- Injuries to: (ex)
  - Scaphoid
  - Trapezium
  - First Metacarpal, non displaced, non angulated
  - Stable Thumb Fractures
- Can also be used for soft tissue rest
  - De Quervain Tenosynovitis



# Cast Vs Splint

## Casting

- Definitive Management
- Does not allow for continued swelling
- Better control of ROM

## Splinting

- Acute Management
- Allows for continued swelling
- ROM limited by application and compliance







SAFES



# Materials Needed

- Stockinette
- Trauma Shears
- ACE Wrap
- Padding (Webril)
- Water Receptacle
- Splinting Material
  - Plaster of Paris, Pre-fabricated plaster or fiberglass (Orthoglass)
- Casting Material
  - Fiberglass



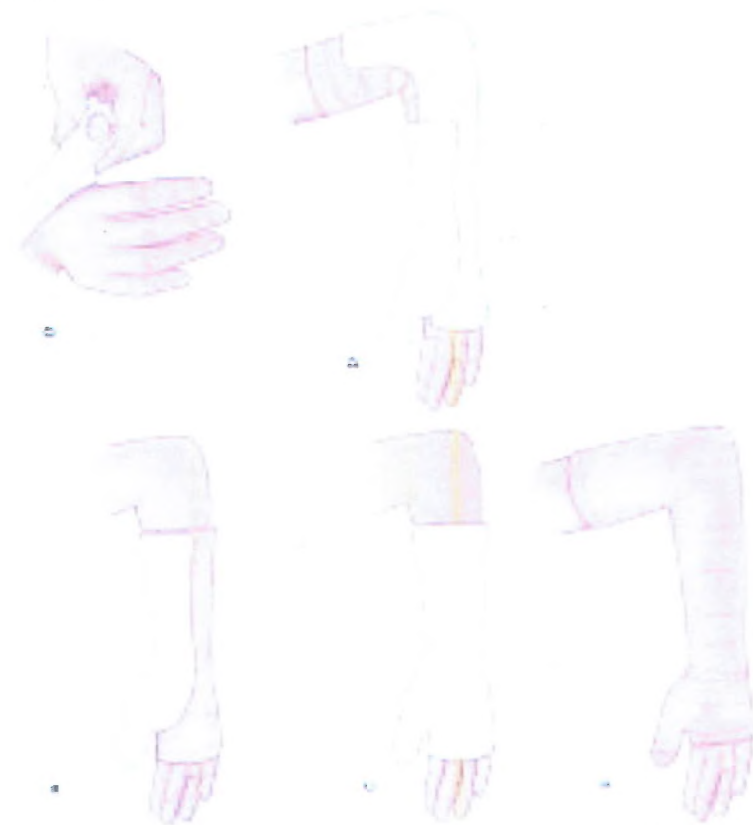


# General Principles

- Measure out dry material at extremity being treated
  - Plaster shrinks slightly when wet; If too long can fold ends back
  - Can be measured on contralateral extremity
- Apply 2-3 layers of web, avoid wrinkles, place extra padding on bony prominences and between digits if needed
- Use approximately 10-12 layers of splinting material (dependent on size of individual)
- Mold with palms of hand vs fingers
- After complete check for function, arterial pulse, capillary refill, temperature of skin, and sensation
- Plain films to evaluate injury and splint/cast







## Splinting Order

- Apply stockinette and/or webril first
- Apply wet/prepared splinting material
- Cover with webril
- Secure with elastic (ACE) band
- Mold splinting material as needed





S A U S H E C



## Casting Order

- Apply stockinette first, then webril
- Apply wet/prepared initial casting material
- Fold over excessive stockinette
- Apply second layer of wet/prepared casting material
- Mold casting material as needed





## Self Evaluation

- Is injured extremity in desired position?
- For thumb spica its forearm in neutral position, wrist at 25 degrees and thumb in “wineglass/can holding” position
- Does injured extremity maintain good color, temp, and cap refill
- Was a long arm vs short arm thumb spica used for non displaced fractures of middle or proximal one third of scaphoid for initial management
- Was thermal injuries avoided by ensuring water was not hot and cast was not too thick





# Patient Education

- Elevate injured extremity at home
- Prop on pillow if needed
- Continue moving other fingers, elbow, and shoulder periodically throughout the day
- If cast feels tight despite elevation seek medical assistance
- Do not scratch under cast; do not get cast wet
- Get immediate assistance if:
  - Numbness (pins and needles) of fingers
  - Excessive swelling of fingers
  - Blueness or whiteness of fingers
  - Severe pain



S A M S H O





## Conclusion

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- **Indications**
- **Cast Vs Splint**
- **Materials Needed**
- **General Principles**
- **Splint**
- **Cast**
- **Self Evaluation**
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